IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(s): ABUTALEBI et al.

SERIAL NO.: 10/642,847 ART UNIT: 2643

FILING DATE: August 18, 2003 EXAMINER:

TITLE: METHOD AND SYSTEM FOR PROCESSING SUBBAND SIGNALS USING ADAPTIVE FILTERS

ATTORNEY DOCKET NO.: 881-011446-US (PAR)

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT
(37 C.F.R. §1.97(b)(3))

Sir:

This information disclosure statement is being filed before the mailing of a first Office Action on the merits.

The following information is being disclosed to the Patent and Trademark Office as information that may be material to the examination of the above-identified patent application. Applicants' Attorney is aware of the following references:

US 5,267,266
US 5,329,587

A. Gilloire et al. "Adaptive Filtering in Subbands with Critical Sampling: Analysis, Experiments, and Application to Acoustic Echo Cancellation" (pp. 1862-1875)

Wai Pang Ng, et al. "Parallel DAF Measurement Device (PDMD) for Non-Intrusive Whitening of Speech" (pp. 1052-1056)

Q.G.Liu, et al., "On the Use of a Modified Fast Affine Projection Algorithm in Subbands for Acoustic Echo Cancelation"(pp. 354-357)

Gansler, et al., "Double-Talk Robust Fast Converging Algorithms For Network Echo Cancellation" (pp. 215-218)

Mariane R. Petraglia, et al., "Performance Comparisons Of Two Adaptive Subband Structures" (pp. 235-238)

Kazuhiko Ozeki et al., "An Adaptive Filtering Algorithm Using an Orthogonal Projection to an Affine Subspace and its Properties"(pp. 19-27)

R.G. Alves, et al., "RLS Algorithm for a New Subband Adaptive Structure with Critical Sampling" (pp. 442-447)

Kiyoshi Nishikawa et al., "Multirate Repeating Method for Alias Free Subband Adaptive Filters" (pp. 776-783)

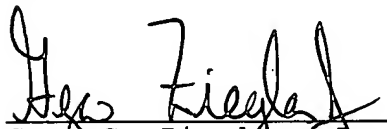
Copies of these patents are enclosed together with a Form PTO-1449.

The above-identified patent application has a counter part PCT patent application No. PCT/CA03/01234. Applicant's attorney encloses a copy of the Search Report issued for the counter part PCT application. The Search Report cites several references, which were provided with the Search Report, and are being disclosed to the Patent and Trademark Office as information that may be material to the examination of the above-identified patent application.

The filing of this Statement is not to be construed as a representation that a search has been made regarding the claimed invention (37 C.F.R. §1.97(g)) or that no other possible material information exists. In addition, the filing of this Information Disclosure Statement is not to be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability (37 C.F.R. §1.97(h)).

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



19 Feb 2004
Date

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope address to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INFORMATION DISCLOSURE CITATION FORM FOR PATENT APPLICATION (FORM PTO-1449) (Substitute)	Docket No.: 881-011446-US (PAR) Serial No.: 10/642,847 Applicant(s): ABUTALEBI et al. Filing Date: 8/18/03 Group: 2643

U.S. PATENTS

Initials	Patent Number	Issue Date	Name	Class	Sub-class	Filing date
	5,267,266	11/30/1993	Chen	375	14	
	5,329,587	7/12/1994	Morgan et al.	379	410	

U.S. PATENT PUBLICATIONS

Initials	Publication No.	Pub. Date	Name	Class	Sub-class	Filing Date

FOREIGN PATENT DOCUMENTS

Initials	Document Number	Date	Country	Name	Translation? Yes/No/n/a

OTHER DOCUMENTS (Title, Author, Date, Pages, Etc., if known)

	Andre Gilloire, et al., "Adaptive Filtering in Subbands with Critical Sampling: Analysis, Experiments, and Application to Acoustic Echo Cancellation", 8084 IEEE Transactions on Signal Processing 40(1992) August, No. 8, New York, pages 1862-1865.
	Wai Pang Ng, et al., "Parallel DAF Measurement Device (PDMD) for Non-Intrusive Whitening of Speech", 2001 IEEE International Conference on Communications, New York, vol. 1 of 10, 11 June 2001, pages 1052-1056.
	Q.G., Liu, et al., "On The Use Of A Modified Fast Affine Projection Algorithm In Subbands For Acoustic Echo Cancelation", Proc. IEEE 1996 Digital Signal Processing Workshop, 1 September 1996, pages 354-357.
	T. Gansler, et al., " Double-Talk Robust Fast Converging Algorithms For Network Echo Cancellation", Applications of Signal Processing to Audio and Acoustics, 1999 IEEE Workshop, New Paltz, New York, 17-20 Oct. 1999, pages 215-218.
	M.R. Petraglia, et al., "Performance Comparisons Of Two Adaptive Subband Structures", Circuits and Systems, 1995. Proceedings of the 38th Midwest Symposium, Rio De Janeiro, Brazil, 13-16 Aug. 1995, pages 235-238.
	Ozeki Kazuhiko et al, "An Adaptive Filtering Algorithm Using An Orthogonal Projection To An Affine Subspace And Its Properties", electronics and Communications in Japan, New York, vol. 67-A, no. 5, 1 May 1984, pages 19-27.
	R.G. Alves, et al., "RLS Algorithm For A New Subband Adaptive Structure With Critical Sampling", Telecommunications Symposium, 1998, New York, 9 August 1998, pages 442-447.
	K. Nishikawa et al., "Multirate Repeating Method For Alias Free Subband Adaptive Filters", IEICE Transactions on fundamentals of Electronics, Communications and Computer Sciences, Institute of Electronics Information and Comm., Eng., Tokyo, Japan, vol. E85-A, no. 4, April 2002, pages 776-783.

Examiner's Signature:	Date Considered:

Initial if reference was considered, whether or not citation is in conformance with MPEP. Mark through citation if not considered. Include a copy of this citation form with your next correspondence to the Applicant(s).

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